

Bread and dough slurry – economical and trendsetting



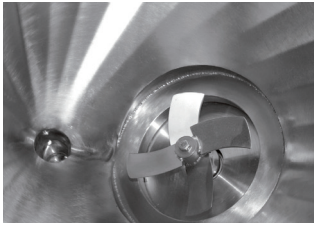
Reprocessing of leftover bread and dough

Leftover bread is ideal to process via fermentation as Bread fermentation (BF). If sourdough is either unsuitable or already in use, bread slurry can be made instead. The bread slurry is prepared in a bread mixer (BM). The remaining bread is mixed with water. Within a few minutes of mixing, we receive a fine suspension, which can be dosed with other raw materials in the bowl. The standard dough yield is 350 and the ratio of bread : water is 1:2,5.

- Improved production efficiency
- Environmentally friendly production with less waste
- Simple operation
- Manual and automatic solutions

Production of Bread Slurry

① Fermenter



② Filling bread and water



③ Mixing



④ Storing/Processing



The bread slurry is prepared in a bread mixer (BM). At first the bread is dosed, then water is added before mixing both components. The mixing process is fast and takes approximately 15 minutes. Consequently, bread slurry can be processed in a few hours without cooling or can be cooled down and remain fresh for further processing over longer periods of time.

Characteristics Bread Slurry {TA (dough yield) 350 (bread-water ratio 100 : 250)}

TA can be lower than 350 and this depends on characteristic of baked goods. The dough yield of slurry should be so low that the sedimentation is minimally and so high that dense of the slurry enable homogeneously mixed the slurry.

Production of Dough Slurry

① Filling Dough



② Filling Water



③ Mixing



④ Storing/Processing



The dough slurry is prepared in a bread mixer (BM). At first the dough is dosed, then water is added before mixing both components. The mixing process is fast and takes approximately 15 minutes. Consequently, bread slurry can be processed in a few hours without cooling or can be cooled down and remain fresh for further processing over longer periods of time.

Characteristics Dough Slurry {TA (dough yield) 200 (dough-water ratio 100 : 100)}

The amount of water added can vary and depends on the TA of the dough. The dough yield of slurry should be so low that sedimentation is minimized and high enough that the density of the slurry allows homogeneous mixing of the slurry.

Background and arguments

The efficient reuse of cost, intensive raw materials, particularly stale bread, through the bread slurry allows for greater water binding due to the pregelatinized starch. This results in a rich, toasted flavor without visible bread particles, enhancing the taste in clean label products and reducing the need for additives.

Dough slurry is a homogeneous mixture of flour and cold water, providing a consistent dough-like component for production. Its use simplifies line startup and shutdown, enhancing process stability and dosing accuracy in continuous dough processing.

Process	TA (Dough yield in kg)	% added	Shelf life at 7 °C	Shelf life unrefrigerated
Bread Slurry	350	5 - 20	up to 72 hrs.	1 - 12 hrs.
Dough Slurry	200	5 - 50	up to 72 hrs.	1 - 12 hrs.

Efficient, versatile use, even in combination with other pre-dough technologies



Rye bread



Rye mix bread



Wheat mix bread



Tortilla



Cereal bread



Cereal rolls

Parameters

Additional amount from flour

rolls and buns

wheat bread

wheat mix bread

rye mix bread

rye bread

Bread slurry

2 - 7,5 %

5 - 20 %

5 - 20 %

5 - 20 %

5 - 20 %

Dough Slurry

buns 5 - 30 %

wheat bread 5 - 50 %

pizza 30 - 50 %

croissant 5 - 30 %

puff pastry 5 - 30 %



Manual solution with DIOSNA Bread mixer for 375 kg bread mix

Mobile and ready to plug in, hygienic and easy-to-clean construction, flexibly suitable for bread mix DY 350, Improved freshness and flavour by adding bread mix to the dough



Semi-automatic solution

Bread loaves will be collected in plastic tubs and discharged via the elevator tipper HKV 224 into a chuncker for cutting and transferring the cut bread via conveyor belt into two bread mixers BM 600.



Fully automatic system

Shick Esteve:

- Grinding machine
- Pneumatic transfer of grinded bread into DIOSNA fermenters

DIOSNA:

- 3x bread mixers BM 600
- Dosing system from BM 600

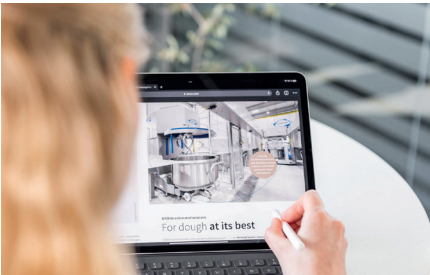
Pre-dough technology – the heartpiece of modern baking culture



The pre-dough process at the beginning of a production line has the first and perhaps even the most important influence on the dough. Nowadays, bakers use pre-dough technology not only for an incomparable bread aroma, but also to gain special quality characteristics. Modern pre-doughs have become the “centerpiece” of baking culture.

Convince yourself with practical tests in our DIOLab, which we can carry out for you or together with you in our DIOSNA machinery. Through precise laboratory analysis of the raw materials you use, we can create or improve processes perfectly tailored to your product and guarantee you customized technology, which can also be tested on your premises.

Dough properties ◀ ▶ Product properties																
		Water absorption	Stability of the pre-dough	Stability of the dough	Dry surface of the dough	Elasticity of the dough	Volume	Taste and aroma	Elasticity of the crumb	Moisture of the crumb	Reduction of fat	Reduction of egg	Stability of the crust	Aroma of the crust	Freshness	Storage stability deep-freeze processes
Bread Slurry		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Dough Slurry		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



You have further questions? Then contact us!
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